CLAIMS

1. A method for determining the degree of loading of a waterproofing agent within a planar carbon substrate, comprising the steps of:

measuring the transmittance of light through the carbon substrate when in an unloaded state;

measuring the transmittance of light through the carbon substrate when in a loaded state; and

comparing the difference in transmittance from the unloaded state to the loaded state and therefrom determining the degree of loading.

2. The method of claim 1 wherein the carbon substrate is a carbon fiber paper.

3. The method of claim 1 wherein the carbon substrate is a carbon cloth.

4. The method of claim 1 wherein the carbon substrate is a continuous web impregnated with an electrically conductive filler.

5. The method of claim 1 wherein the waterproofing agent is polytetrafluorethylene.

6. The method of claim 1 wherein the waterproofing agent is selected from the group consisting of polyethylene, polypropylene and ethylene-propylene copolymer.

7. The method of claim 1 wherein the degree of loading of the waterproofing agent within the carbon substrate when in the loaded state ranges from 1% to 50% by weight.

8. The method of claim 1 wherein the degree of loading of the waterproofing agent within the carbon substrate when in the loaded state ranges from 4% to 30% by weight.

9. The method of claim 1 wherein transmittance is measured at 4000 to 7000 Å.

10. The method of claim 1 wherein light is provided by a light source selected from the group consisting of halogen, tungsten, fluorescent and UV lamps.

11. The method of claim 1 wherein the carbon substrate has a thickness of less than 0.5 mm.